VILLAGE OF MONTPELIER
WATER PLANT
DRINKING WATER
CONSUMER CONFIDENCE REPORT
FOR "2018"

To comply with the Safe Drinking Water Act amendments, the Village of Montpelier is annually issuing a report about monitoring performed on its drinking water. The purpose of this report is to provide information to you, the consumer, on the quality of your drinking water.

What's the source of your drinking water?

The Village of Montpelier's 2 MGD Water Treatment Plant at 333 Porter Road was commissioned on the first day of September 2005. It's water supply comes from four (4) wells that are between 190 – 200ft. deep. Three of the wells are 16" in diameter and the fourth is an 8". The well production rates are two at 700 gpm and two at 350 gpm. The treatment process consists of lime softening, carbon dioxide and poly-phosphate stabilization, filtration, and chlorine disinfection. Your treatment plant is operated by Thane Apt (Supervisor) and Dan Ankney (Operator). Thane has a Class 2 Water Supply License and Dan has a Class 1 Water Supply License.

The Ohio EPA has completed a study of the Village of Montpelier's source of drinking water, to identify potential contamination sources and provide guidance on protecting the drinking water source. According to this study, the aquifer (water rich zone) that supplies water to the Village of Montpelier has a low susceptibility to contamination based on; 1) presence of a thick layer of clay overlying the aquifer, 2) significant depth (over 90') of the aquifer, 3) no evidence to suggest that ground water has been impacted by any significant levels of chemical contaminations from human activities, and 4) no apparent potential contaminant sources in the protection area. This susceptibility means that under current existing conditions, the likelihood of the aquifer becoming contaminated is relatively low. This likelihood can be minimized by implementing appropriate protective measures. More information about the source water assessment or what customers can do to help protect the aquifer is available by calling 419-485-0936.

Protecting our drinking water source from contamination is the responsibility of all area residents. Please dispose of hazardous chemicals in the proper manner and report polluters to the proper authorities. Only by working together can we insure an adequate safe supply of water for future generations.

What are sources of contamination to drinking water?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals and, in some cases, radioactive material. It can also pick up substances resulting from the presence of animals and human activity.

Contaminants that may be present in source water include: **(A)** Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife; **(B)** Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban storm water runoff, industrial or domestic wastewater discharges, oils and gas production, mining, or farming; **(C)** Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban water runoff, and residential uses; **(D)** Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water runoff, and septic systems; **(E)** Radioactive contaminants, which can be naturally occurring or be the result of oil and gas production and mining activities.

In order to ensure that the tap water is safe to drink, the USEPA prescribes regulations, which limit the amount of certain contaminants in water provided by public water systems. The Food and Drug Administration (FDA) regulations also establish limits for contaminants in bottled water, which must provide the same protection for public health.

The sources of drinking water (both tap water and bottled water) may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (1-800-426-4791)

Who needs to take special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as people undergoing chemotherapy for cancer, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorder, some elderly, and infants can be particularly at risk for infection. These people should seek advice about drinking water

from their health care providers. The EPA and Center of Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

About your drinking water.

Montpelier's drinking water has been nationally recognized for its wonderful taste by winning the gold medal in the Berkeley Springs International Water Tasting Competition in 2003, 2006, 2007, and 2017. Our water has also placed in the top 5 on 6 different occasions and in the top 10 the other 5 years.

The EPA requires regular sampling to ensure drinking water safety. The Montpelier Water Treatment Plant conducted sampling for 13 different regulated contaminants in 2018. These samples were for total coliform and E-coli bacteria, Nitrate, 5 Haloacetic acids and 5 Trihalomethane compounds. The Ohio EPA requires us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though accurate, are more than one year old.

Listed below is information on those contaminants that were found in the Village of Montpelier's drinking water within the last 5 years.

Inorganic Contaminants

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Fluoride, F	4 mg/L	4 mg/L	0.64 mg/L	0.64 mg/L	no	2016	Erosion of natural deposits.
Barium, Total	2 mg/L	2 mg/L	0.026 mg/L	0.026 mg/L	no	2016	Erosion of natural deposits.
Nitrate, NO_3	10 mg/L	10 mg/L	0.25 mg/L	0.25 mg/L	no	2018	Erosion of natural deposits; Runoff from fertilizer use.

Lead and Copper

Contaminant	MCLG	MCL (AL)	Reported Level	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Lead, Pb	0	15 ug/L	<4.0 ug/L	<4.0 – 9 ug/L(20)	no	2016	Corrosion or leaching of interior home plumbing
Copper, Cu	0	1.3 mg/L	0.041 mg/L	7.0 – 108 mg/L(20)	no	2016	Corrosion or leaching of interior home plumbing

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Village of Montpelier is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.

Volatile Organic Contaminants

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contaminant
Haloacetic Acids (HAA_5)	*	60 ug/L	**10.4 ug/L**	8.1-10.4 ug/L	**no**	2018	By-product of drinking water chlorination
Dibromoacetic Acid	*	*	3.7 ug/L	2.4-3.7 ug/L	**no**	2018	By-product of drinking water chlorination (part of HAA_5)
Dichloroacetic Acid	*	*	4.2 ug/L	2.5-4.2 ug/L	**no**	2018	By-product of drinking water chlorination (part of HAA_5)
Trichloroacetic Acid	*	*	3.2 ug/L	2.5-3.2 ug/L	**no**	2018	By-product of drinking water chlorination (part of HAA_5)
(TTHM) Total Trihalomethanes	*	80 ug/L	**76.5 ug/L**	61.3-76.5 ug/L	**no**	2018	By-product of drinking water chlorination
Bromodichloro-methane	*	*	24.3 ug/L	20.8-24.3 ug/L	**no**	2018	By-product of drinking water chlorination (part of TTHM)
Bromoform	*	*	7.3 ug/L	6.0-7.3 ug/L	**no**	2018	By-product of drinking water chlorination (part of TTHM)
Chloroform	*	*	24.5 ug/L	17.1-24.5 ug/L	**no**	2018	By-product of drinking water chlorination (part of TTHM)
Dibromochloro-methane	*	*	20.4 ug/L	17.4-20.4 ug/L	**no**	2018	By-product of drinking water chlorination (part of TTHM)

*There is no MCLG and/or MCL for this contaminant.
(TTHM sampling is taken at a location that has been determined to have the oldest water age…chlorination by-products increase with age)

Total Chlorine Running Annual Average

Contaminant	MCLG	MCL	Level Found	Range of Detections	Violation	Sample Year	Typical Source of Contamination
Total Chlorine Residual	<4 mg/L	4 mg/L	1.05 mg/L	0.83-1.20 mg/L (12)	**no**	2018	Chlorine added for disinfection.

We have a current, unconditioned license to operate our water system.

The EPA establishes an annual monitoring schedule for each public water system. They regulate the testing of many types of contaminants on a regular basis. The Village of Montpelier Water Plant is regulated to routinely monitor for the following contaminants: Total Coliform Bacteria, E-coli Bacteria, Inorganic Chemicals, Synthetic Organic Chemicals, Volatile Organic Chemicals, Nitrates, Nitrites, Radiological, Lead & Copper, Mercury, and Radon. Throughout all this testing, **Montpelier has never had any violations on its drinking water.**

How do I participate in decisions concerning my drinking water?

Public participation and comment are encouraged at regular meetings of the Village Council, which meets every second and fourth Monday of the month. The meetings are held at the Montpelier Police Dept. conference room and start at 6:00 p.m. (Call Village Offices at 419-485-5543 during business hours to be sure the meeting has not been rescheduled)

For more information on your drinking water, contact Thane Apt (Supervisor) or Dan Ankney (Chief Operator) at 485-0936. Normal working hours are 6:30 a.m. to 3:00 p.m. everyday of the week. Tours of the water plant can also be scheduled.

Definitions of some terms contained within this report.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

Maximum Contaminant Level (MCL): The highest level of contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. In most cases, the USEPA sets MCLs at one in one million level. This means that if a person drinks two liters (approximately half a gallon) of water containing a contaminant at the MCL per day for 70 years, the risk for developing some adverse reaction to the substance is one in one million.

Action Level (AL): The action level is the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Parts per Million (ppm) or Milligrams per Liter (mg/L): Units of measure for concentration of a contaminant. A part per million corresponds to one second in approximately 11.5 days, 1 (one) ounce of seasoning in 62,500 pounds of hamburger, or 1 (one) penny of $10,000.

Parts per Billion (ppb) or Micrograms per Liter (ug/L): Units of measure for concentration of a contaminant. A part per billion corresponds to 1 (one) second in approximately 31.5 years, 1 (one) ounce of dye in 7,812,500 gallons of water, or 1 (one) penny of 10 million dollars.

Microsiemens per Centimeter (uS/cm) or Micromhos per Centimeter (uMho/cm): A measurement of conductance or the ability to carry an electrical current.

Gallons Per Minute (gpm): Rate of water flow.

Listed below is the general analysis and chemical make-up of the Village of Montpelier's drinking water in 2018.

Weekly Tests

Water Stability.....Stable to slightly scale forming

Monthly Tests

(average)

Phosphorus as P04.....0.26 mg/L

Daily Operational Tests (average)

Water Hardness, Total.....115 mg/L*
Alkalinity, Phenol.....2 mg/L
Alkalinity, Total.....102 mg/L
pH.....8.33
Chlorine, Free.....0.95 mg/L
Chlorine, Total.....1.05 mg/L

*divide by 17.1 to achieve grains per gallon.

(The addition of poly-phosphate added to the water, sequesters the remaining hardness minerals and makes the water react more soft than it is.)

Backflow Prevention and Cross-Connection Information.

Below is some information regarding Backflow Prevention and Cross-Connection Control. If you believe that you have found a potential cross-connection or if you have any questions regarding backflow prevention, please contact the Village Offices at 419-485-5543.

If a potential or actual cross-connection contamination hazard is identified, the customer will be required to eliminate the hazard and/or install an appropriate backflow preventer at the service connection and/or at the hazard.

Special Conditions

Auxiliary Water Systems

What is an auxiliary water system?

It is any water system on or available to your property other than the public water system. Used water or water from wells, cisterns or open reservoirs that are equipped with pumps or other sources of pressure, including gravity are examples.

What protection is required?

- The auxiliary water system must be completely separated from water supply plumbing served by a public water system; and
- An approved backflow preventer must be installed at the service connection (where the public water system connects to the customer's plumbing system).

OR

- The auxiliary water system must be eliminated.

Are there exceptions?

At their discretion, the water supplier may waive the requirement for a backflow preventer at the service connection if all the following conditions are met:

- All components of the auxiliary water system, including pumps, pressure tanks and piping, are removed from the premises, which are defined as all buildings, dwellings, structures or areas with water supply plumbing connected to the public water system.
- The possibility of connecting the auxiliary water system to the water supply plumbing is determined by the water supplier to be extremely low.
- No other hazards exist.
- The customer enters into a contract with the water supplier, as described below.

The contract will require the customer:

- To understand the potential hazard of a cross-connection.
- To never create a cross-connection between the auxiliary water system and the public water system.
- To allow an inspector to survey their property for hazards as long as the contract is in effect.
- To face loss of service and other penalties if the contract is violated.

The water supplier must perform an annual inspection of the customer's contract-regulated property to verify the conditions have not changed, which would warrant installation of a backflow preventer. The water supplier must, by law, do everything reasonably possible to protect the water system from contamination.

Booster Pumps

What is the concern?

Booster pumps connected to plumbing systems or water mains can cause backsiphonage by reducing the water mains. The following requirements are in place to help prevent backsiphonage:

- Booster pumps, not used for fire suppression, must be equipped with a low suction cut-off switch that is tested and certified every year;
- Alternately, when a booster pump is necessary for one-, two- and three-family dwellings, it is preferred that the booster pump draw from a surge tank filled through an air gap; and
- Booster pumps, used in a fire suppression system, must be equipped with either a low suction throttling valve on the discharge side or be equipped with a variable speed suction limiting control system. Low-pressure cut-off devices will suffice for fire pumps installed prior to August 8, 2008, until a significant modification is warranted, at which point the minimum pressure sustaining method must be updated. Each of these methods must be tested and certified each year.

Contacts

Need more information?

Questions concerning backflow prevention and cross-connection control may be directed to your local water department or to your local Ohio EPA District Office at the following numbers:

Northwest District	**(419) 352-8461**
Northeast District	**(330) 963-1200**
Southwest District	**(937) 285-6357**
Southeast District	**(740) 385-8501**
Central District	**(614) 728-3778**

Questions regarding internal plumbing in the home may be directed to your local plumbing authority or to the Ohio Department of Commerce, Plumbing Administrator, at (614) 644-3153.

John Kasich, Governor
Craig W. Butler, Director

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Ohio Environmental Protection Agency

Backflow Prevention and Cross-Connection Control

Protecting our Public Water System

August 2015

Division of Drinking and Ground Waters
P.O. Box 1049
Columbus, Ohio 43216-1049
(614) 644-2752
www.epa.ohio.gov

What is a cross-connection?

Any physical connection created between a possible source of contamination and any drinking water system piping.

What is backflow?

It is the flow through a cross-connection from a possible source of contamination back into the drinking water system. It occurs when a cross-connection is created and a pressure reversal, either as backsiphonage or backpressure, occurs in the water supply piping.

Why be concerned?

- ALL cross-connections pose a potential health risk.
- Backflow can be a health hazard for your family or other consumers if contaminated water enters your water supply plumbing system and is used for drinking, cooking or bathing. Chemical burns, fires, explosions, poisonings, illness and death have all been caused by backflow through cross-connections.
- Backflow occurs more often than you think.
- You are legally responsible for protecting your water supply plumbing from backflow that may contaminate drinking water, either your own or someone else's. This includes complying with the plumbing code and not creating cross-connections.

What causes backsiphonage?

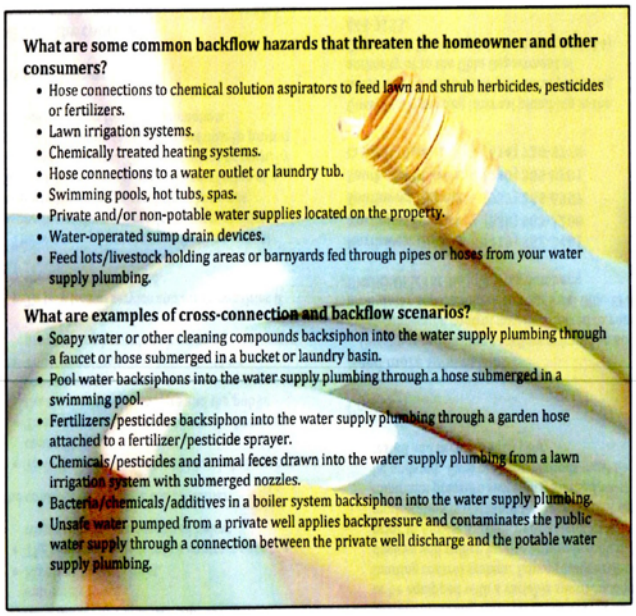
Backsiphonage occurs when there is a loss of pressure in a piping system. This can occur if the water supply pressure is lost or falls to a level lower than the source of contamination. This condition, which is similar to drinking from a glass with a straw, allows liquids to be siphoned back into the distribution system.

What causes backpressure?

Backpressure occurs when a higher opposing pressure is applied against the public water system's pressure. This condition allows undesirable gases or liquids from another system to enter the drinking water supply. Any pumping system (such as a well pump) or pressurized system (such as steam or hot water boilers) can exert backpressure when cross-connected with the public water system.

What can I do?

- Be aware of and eliminate cross-connections.
- Maintain air gaps. Do not submerge hoses or place them where they could become submerged.
- Use hose bib vacuum breakers on fixtures (hose connections in the basement, laundry room and outside).
- Install approved, testable backflow preventers on lawn irrigation systems.
- Do not create a connection between an auxiliary water system (well, cistern, body of water) and the water supply plumbing.



What are some common backflow hazards that threaten the homeowner and other consumers?

- Hose connections to chemical solution aspirators to feed lawn and shrub herbicides, pesticides or fertilizers.
- Lawn irrigation systems.
- Chemically treated heating systems.
- Hose connections to a water outlet or laundry tub.
- Swimming pools, hot tubs, spas.
- Private and/or non-potable water supplies located on the property.
- Water-operated sump drain devices.
- Feed lots/livestock holding areas or barnyards fed through pipes or hoses from your water supply plumbing.

What are examples of cross-connection and backflow scenarios?

- Soapy water or other cleaning compounds backsiphon into the water supply plumbing through a faucet or hose submerged in a bucket or laundry basin.
- Pool water backsiphons into the water supply plumbing through a hose submerged in a swimming pool.
- Fertilizers/pesticides backsiphon into the water supply plumbing through a garden hose attached to a fertilizer/pesticide sprayer.
- Chemicals/pesticides and animal feces drawn into the water supply plumbing from a lawn irrigation system with submerged nozzles.
- Bacteria/chemicals/additives in a boiler system backsiphon into the water supply plumbing.
- Unsafe water pumped from a private well applies backpressure and contaminates the public water supply through a connection between the private well discharge and the potable water supply plumbing.

What must be done to protect the public water system?

The public water supplier must determine potential and actual hazards. If a hazard exists at a customer's public water supply service connection, the customer will be required to install and maintain an appropriate backflow preventer* at the meter and/or at the source of the hazard.

*Check with your water supplier to verify which backflow preventer is required before purchase or installation.

Who is responsible?

In Ohio, the responsibility for preventing backflow is divided. In general, state and local plumbing inspectors have authority over plumbing systems within buildings while Ohio EPA and water suppliers regulate protection of the distribution system at each service connection.

Water customers have the ultimate responsibility for properly maintaining their plumbing systems. It is the homeowner's or other customer's responsibility to ensure that cross-connections are not created and that any required backflow preventers are tested yearly and are in operable condition.

What is the law?

Ohio Administrative Code Chapter 3745-95 requires the public water supplier to protect the public water system from cross-connections and prevent backflow situations. The public water supplier must conduct cross-connection control inspections of their water customers' property to evaluate hazards. Local ordinances or water department regulations may also exist and must be followed in addition to state regulations.